ABSTRACT OF THE DISCLOSURE

Each member of a group registers with the Security/Routing (S/R) device 30 and receives a Group Security Association (GSA) associated with the group. The member may register as part of a group by identifying the group and the other members. Alternatively, Routing Functionality auto-discovers the other members of the group. AS members are identified, Routing functionality reflects the routes of all members in the group to all other members of the group. The forwarding of the routes to the respective group members may be secured via the GSA associated with the group. Each member can forward communication directly to the group members, securing the communication using the group SA and standard tunneling techniques (such as IPsec, GRE, MPLS, etc.). Thus the S/R provides a mechanism for private networks to be built on top of an existing network without modification of any existing network components and much more scalable in operation and configuration than individual IP sec tunnels.